Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

INFORMATION AND COMMUNICATION TECHNOLOGY **0417/02**

Paper 2 Practical Test A **October/November 2018**

MARK SCHEME

Maximum Mark: 80

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **13** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Header Name, Centre number, candidate number right aligned 1 mark

Name, Centre Number, Candidate Number

History of Tawara Mining

Title
Data entry 100% accurate 1 mark
THM-Title style created and applied 1 mark
(right, serif, 36pt, bold only, 0 space before/after)

Report produced by: Candidate Name

Subtitle
Name inserted, THM-Subtitle style created and applied 1 mark
(serif, 18pt, left aligned, underline only, 0 space before/after)

Tawara is best known today for its tou… …and farming but there was a time when it was know… …closure of the last tin mi… …nities were built on its we…

The first part of the 19th century was the peak for mining in this area with most of the world's copper being mined here. The largest, deepest and oldest mine in the world was located here until its closure in 1921. … mile… Mine… South… future leader of the industry. … copper, lead and zinc.

Image
Image inserted in correct position 1 mark
Aligned to top of text and left margin, text wrapped 1 mark
Resized to 3.5 cm wide, aspect ratio maintained 1 mark

Columns
Section break correct position 1 mark
2 columns, 2 cm column spacing 1 mark

The mining process consisted of a shaft sunk into the ground from which tunnels or drives would be blasted from the rock to reach the seams that contained… raises wer… out from… valuable ore from the… rock was taken from… to the processing mill… extraction methods were used to … the metals.

2 page breaks removed (after subhead *Dangers* and text *… and even Peru.)* 1 mark

Page break removed

Dangers

Any job working below the ground is potentially hazardous and mining was no exception. Conditions were hot, oppressive and very dangerous but miners were prepared t… well paid compared to…

in hot, damp and dusty conditions meant miners were prone to many different disease…

to work beyond … finger which aff… vibrating hand-he…

…re no cages to haul miners up and down the shaft. …dders which could stretch down for 100 feet. Not …mmonplace. Rock falls and flooding were hazards …y basis and accidents were a frequent occurrence. …nturies, it was common place for children to be employed in the mines.

Demise of Mining

In 1893 there were 67 mines in the area producing tin but by 1897 only 31 were still in production. Discoverie… mineral deposits in the New World caused man… Thousands of miners m… much valued in the new… and even Peru.

Subheadings (7)
THM-Subhead style applied – matches style defined in Evidence Document 1 mark

Page break removed

Several minor revivals took place over the following century, but the mining industry never fully recovered and became completely unprofitable as it could not compete with mining expansion around the world. Metal … ally resulted in the

Footer – Page numbers left aligned, automated file name & path right aligned 1 mark

1 C:\Folder\MINING.docx

Name, Centre Number, Candidate Number

collapse of mining at Tawara on an industrial scale. The last working tin mine in Europe closed in 1998.

World Mining

Today the world's top 5 mining countries are:

- Russia – iron, nickel, coal and cobalt
- South Africa – gold, copper and iron
- USA – copper, coal
- Australia – iron, nickel and bauxite
- [illegible] – gold, iron, bauxite, copper

Bullets
Square bullets applied to correct list 1 mark
Bullets indented 1.5 cm from left margin, no space between items 1 mark

importance to rulers and traders. It was alloyed with copper to make bronze for utensils, weapons and decorations in a material that was far superior to stone.

Tin revolu
enabled fo
wrapping
everyday
steel or alu
an importa
comparati
China and
The larges
in Portuga

Table content complete, correct place, no changes to data 1 mark
Year 2000 price per kg column deleted 1 mark
Nickel row inserted, data 100% accurate 1 mark
Sort *Metal Name* ascending order, integrity maintained 1 mark
Top row merged, heading centred over 5 columns 1 mark
Top row only text bold, italic, 14 pt sans-serif font 1 mark
Top row - black background, white text 1 mark
Table within column width, text on one line, all borders/gridlines printed 1 mark
THM-Table style created and applied rows 2 to 8 (serif, 11pt, centre, no space before/after each row) 1 mark

The Future

Over recent times the price of tin in particular has been soaring again due to limited reserves found around the world. Current metal prices are as follows:

BASE METAL PRICE USD				
Metal name	Price/kg	Price/tonne	Price low	Price high
Aluminium	1.74	1635.01	1.55	1.74
Copper	5.11	4885.02	4.55	5.63
Lead	1.88	1817.51	1.63	1.97
Nickel	11.27	10794.13	8.05	11.48
Tin	18.77	17965.03	14.01	19.01
Zinc	2.35	2280.91	1.52	2.36

[illegible] of metal are still found in Tawara granite and over the [illegible]he price is expected to double. Demand has also increased [illegible]der in the electronic and computer markets. [illegible]ogy mean that the cost of extraction has [illegible]vironment regulations have all improved. [illegible]mining an attractive proposition and the [illegible]never been brighter.

[illegible]eritage Mining

[illegible]dition range of commemorative bullion [illegible] of the mining industry. We are offering [illegible]of purchasing commemorative ingots of [illegible] Copper (reddish/orange in appearance), [illegible]) and Zinc (bluish/white in appearance). [illegible]m and is branded with the Tawara hallmark. All have been sourced from Tawara ore production and are 99.9% pure.

Page layout
THM-Body style created and applied to all text - serif, 11pt, justified, single line, 0pt before 12pt space after only 1 mark
Document complete/paragraphs intact, landscape, columns balanced at top, no widows/orphans, split tables, lists, blank pages 1 mark

Card payments in 2017

Name, Centre number, Candidate number

Cust_No	Title	First_Name	Last_Name	Order_ID	Order_Value	Gross_Value	Pay_Type
THM0053	Mr	Freddie	Greenwood	T183	€90	€108	Paycardo Wallet
THM002		Aaron	Bentley	T144	€90	€108	Paycardo Wallet
			arce				
			lmer				
			Bailey				
THM0084	Miss	Francesca	Brooks				
THM0036	Mr	Lewis	Bates	T174	€120	€144	Debit Card
THM0071	Mr	Alex	Fisher	T188	€120	€144	Debit Card
THM0006	Mr	Gabriel	Bryan	T160	€135	€162	Debit Card
THM0090	Miss	Matilda	Craig	T195	€140	€168	Debit Card
THM0001	Mr	Luke	Kirby	T143	€90	€108	Credit Card
THM0038	Mr	Patrick	Woodward	T145	€90	€108	Credit Card
THM0083	Mr	Taylor	Hargreaves	T150	€90	€108	Credit Card
THM0098	Mr	Henry	Dodd	T156	€91	€109	Credit Card
THM0095	Mrs	Samantha	Walton	T40	€95	€114	Credit Card
THM0088	Mrs	Lara	Riley	T153	€105		
THM0051	Mr	Hayden	Parsons	T181	€120		
THM0086	Ms	Emma	West	T152	€120		
THM0086	Ms	Emma	West	T193	€120	€144	Credit Card
THM0030	Mrs	Alice	Lamb	T171	€120	€144	Credit Card
THM0001	Mr	Luke	Kirby	T1	€121	€145	Credit Card
THM0005	Miss	Ellie	Morley	T159	€121	€145	Credit Card
THM0009	Mrs	Jennifer	Welch	T161	€125	€150	Credit Card
THM0096	Ms	Ellie	Jenkins	T155	€130	€156	Credit Card
THM0009	Mrs	Jennifer	Welch	T198	€130	€156	Credit Card
THM0010	Mrs	Isabel	Price	T162	€131	€157	Credit Card
THM0091	Ms	Gracie	Stokes	T196	€135	€162	Credit Card
THM0044	Mrs	Samantha	Bowen	T201	€160	€192	Credit Card
				Average order value	€114		

Title
Correct, 100% accurate 1 mark

Calculated field
Heading 100% accurate 1 mark
Order_Value plus 20% 1 mark

Select records (28):
Pay_Type contains ***card*** 1 mark
Order_Year is ***2017***, *Order_Value* is ***90 or more*** 1 mark

Record THM0044 inserted as <u>new record</u> – THM0001 (T143/T1) not replaced 1 mark

Order_Value, *Gross_Value*, *Average Value* same currency symbol, 0dp 1 mark
Sort descending *Pay_Type,* ascending *Order_Value* no grouping 1 mark
Specified base fields in correct order 1 mark
Landscape, one page wide, all base fields present and fully visible 1 mark

Average *Order_Value* positioned under *Order_Value* column. 1 mark
Label to left of calculation, 100% accurate 1 mark

VIP Invitation!

Mrs Samantha Bowen
York Lane
Folkestone HA15 8TR
31-Dec-14
4

Name, Centre number, Candidate number

VIP Invitation!

Ms Ellie Jenkins
Wheal Alfred
Penzance TR18 3TF
23-Jul-13
4

Name, Centre number, Candidate number

VIP Invitation!

Mrs Isabel Price
Goodway
Glasgow CA4 1JK
02-Sep-10
6

Name, Centre number, Candidate number

VIP Invitation!

Ms Katie Rees
Talltrees
Croydon CR1 2HO
05-May-08
4

Name, Centre number, Candidate number

VIP Invitation!

Mr Joshua Summers
Coombe House
Tewkesbury CR2 5UN
03-Jun-05
3

Name, Centre number, Candidate number

VIP Invitation!

Mrs Jennifer Welch
Largeglen
Glasgow CA18 1BT
31-Dec-14
5

Name, Centre number, Candidate number

VIP Invitation!

Mr Sean Wells
Lowerhill Drive
Halifax HP12 3LO
03-Jun-05
3

Name, Centre nu

Select records (7)
Memb_Type is **Adult** or **Family** 1 mark
Memb_Date is **<01/01/2015**, *Tin* is **>=3** 1 mark
Sort ascending on *Last_Name* 1 mark

Layout:
Labels in 2 columns, 8 labels to page 1 mark
Heading **VIP Invitation!** top of every label, centred, bold, larger font size 1 mark
Fields on separate lines, correct position, space to separate:
Title First_Name Last_Name
Add1
Town Postcode
Memb_Date
Tin 1 mark
Name, Centre number and candidate number bottom of every label 1 mark

MAIL MERGE

Name, Centre Number, Candidate number

Tawara Heritage Mining
Twelve Heads
St Way
TR2 3WW
Tel: 020 7946 0158
Email: TMH@tawaramining.com

Image reflected 1 mark

09-Aug-16

«Title» «First_Name» «Last_Name»
«Add1»
«Town»
«County»
«PostCode»

Dear «First_Name»

We are
comme
unveile

As an «
to this
equipment including drill-rigs, loaders and training simulators. You will also have free entry to our «Bonus» which tells the fascinating story of Tawara mining.

Merge Fields inserted – placeholders and <> correctly replaced
«Title» «First_Name» «Last_Name» | «Add1» | «Town» | «County» | «Postcode» correct position and space 1 mark
«First_Name» | «Status» | «Bonus» | «Reward» correct position and spacing 1 mark

In recognition of your continued loyalty all VIP visitors will receive a gift of a branded commemorative «Reward» coin. You will also be given the opportunity of purchasing a limited edition commemorative gold or silver bullion ingot. All the coins and ingots have been mined on site and are branded with the Tawara hallmark. They will only be available for purchase on the day and are sure to become collector items.

We look forward to welcoming you at the Tawara Heritage Mining open day.

Yours sincerely

Joe Bloggs
Tawara Heritage Mining

Name replaces Candidate Name
Name, Centre number and candidate number in the header 1 mark

Tawara Heritage Mining
Twelve Heads
St Way
TR2 3WW
Tel: 020 7946 0158
Email: TMH@tawaramining.com

09-Aug-18

Mr Alex Lord
27 Hadduck Street
Coventry
CV6 9NR

Dear Alex

We are delighted to inform you that we are introducing a limited edition range of commemorative bullion ingots to celebrate the history of Tawara Mining. These will be unveiled at our Open Day to be held on 4 December 2018.

As an Elite member of Tawara Heritage Mining we are pleased to offer you VIP tickets to this Open Day. There will be a great exhibition of heavy underground and surface equipment including drill rigs, loaders and training simulators. You will also have free entry to our Hard Rock Museum which tells the fascinating story of Tawara mining.

In recognition of your continued loyalty all VIP visitors will receive a gift of a branded commemorative Tin coin. You will also be given the opportunity of purchasing a limited edition commemorative gold or silver bullion ingot. All the coins and ingots have been mined on site and are branded with the Tawara hallmark. They will only be available for purchase on the day and are sure to become collector items.

We look forward to welcoming you at the Tawara Heritage Mining open day.

Yours sincerely

Joe Bloggs
Tawara Heritage Mining

Tawara Heritage Mining
Twelve Heads
St Way
TR2 3WW
Tel: 020 7946 0158
Email: TMH@tawaramining.com

09-Aug-18

Ms Victoria Griffiths
37 Reading Close
Ipswich
Suffolk
IP5 9ZZ

Dear Victoria

We are delighted to inform you that we are introducing a limited edition range of commemorative bullion ingots to celebrate the history of Tawara Mining. These will be unveiled at our Open Day to be held on 4 December 2018.

As an Elite member of Tawara Heritage Mining we are pleased to offer you VIP tickets to this Open Day. There will be a great exhibition of heavy underground and surface equipment including drill rigs, loaders and training simulators. You will also have free entry to our Hard Rock Museum which tells the fascinating story of Tawara mining.

In recognition of your continued loyalty all VIP visitors will receive a gift of a branded commemorative Pewter coin. You will also be given the opportunity of purchasing a limited edition commemorative gold or silver bullion ingot. All the coins and ingots have been mined on site and are branded with the Tawara hallmark. They will only be available for purchase on the day and are sure to become collector items.

We look forward to welcoming you at the Tawara Heritage Mining open day.

Yours sincerely

Joe Bloggs
Tawara Heritage Mining

Tawara Heritage Mining
Twelve Heads
St Way
TR2 3WW
Tel: 020 7946 0158
Email: TMH@tawaramining.com

09-Aug-18

Ms Anka Ploski
32 Quave Street
Maidenhead
Berkshire
SL6 1HZ

Dear Anka

We are delighted to inform you that we are introducing a limited edition range of commemorative bullion ingots to celebrate the history of Tawara Mining. These will be unveiled at our Open Day to be held on 4 December 2018.

As an Elite member of Tawara Heritage Mining we are pleased to offer you VIP tickets to this Open Day. There will be a great exhibition of heavy underground and surface equipment including drill rigs, loaders and training simulators. You will also have free entry to our Hard Rock Museum which tells the fascinating story of Tawara mining.

In recognition of your continued loyalty all VIP visitors will receive a gift of a branded commemorative Copper coin. You will also be given the opportunity of purchasing a limited edition commemorative gold or silver bullion ingot. All the coins and ingots have been mined on site and are branded with the Tawara hallmark. They will only be available for purchase on the day and are sure to become collector items.

We look forward to welcoming you at the Tawara Heritage Mining open day.

Yours sincerely

Joe Bloggs
Tawara Heritage Mining

Result of merge – 3 letters printed –
Alex Lord, Victoria Griffiths, Anka Ploski only 1 mark

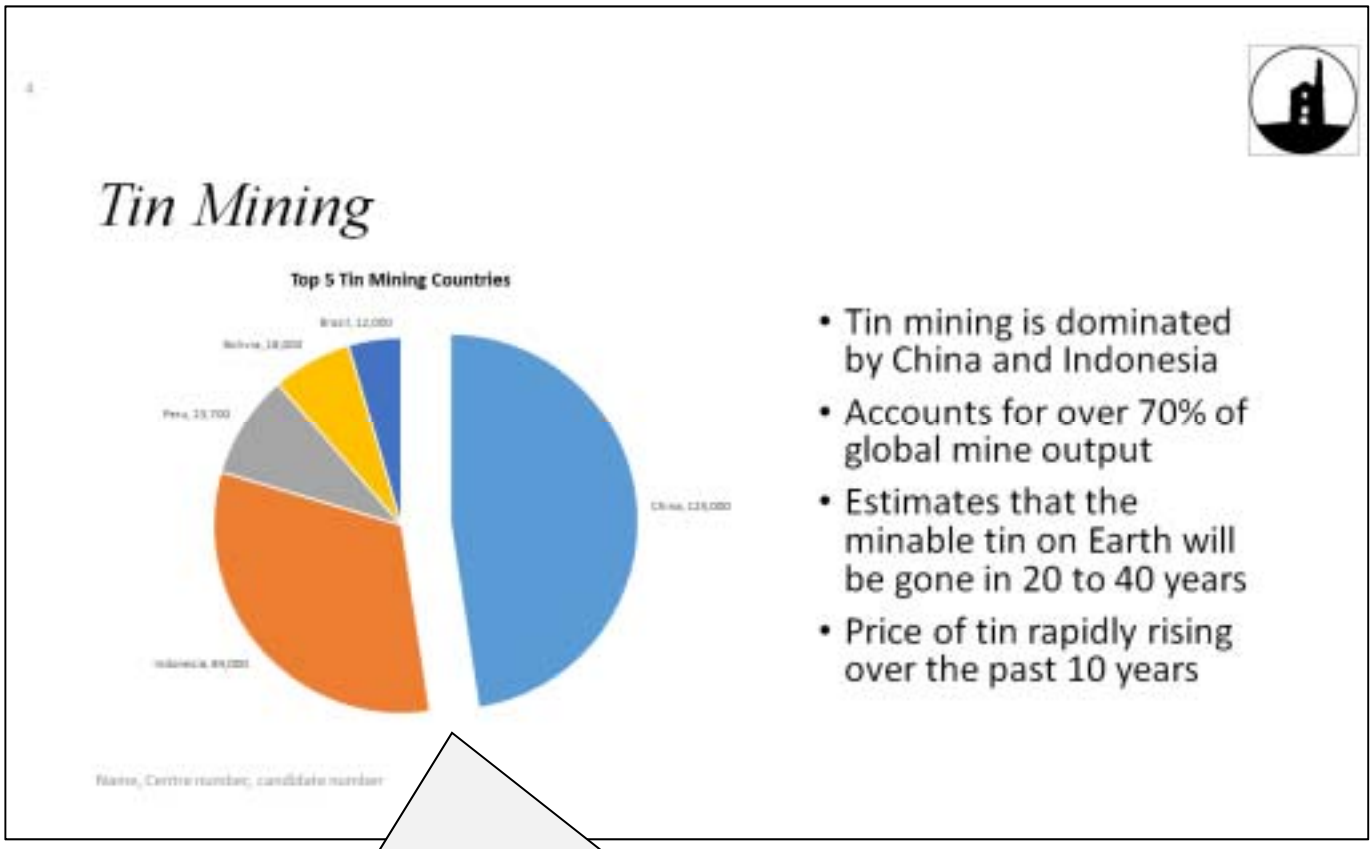
Task 5 – Presentation

5 slides imported, title and bullet layout no blank slides, no text changed, no overlap 1 mark

Master slide (items appear on all slides, same position and size):

Logo appears top right, resized with aspect ratio maintained, same position/size on all slides 1 mark

Name, Centre and candidate numbers bottom left, automatic slide numbers top left same position/size on all slides 1 mark

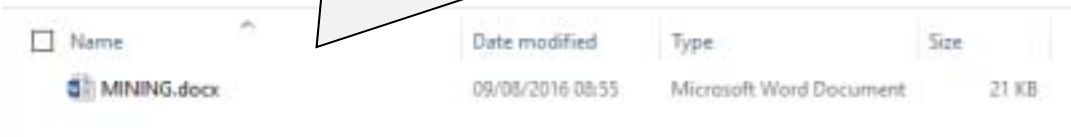


Pie chart created, correct data for top 5 countries only	1 mark
Chart title **Top 5 Tin Mining Countries**	1 mark
Countries and values only on segments, no legend	1 mark
Largest segment pulled away from chart	1 mark
Chart positioned to left of bullets on *Tin Mining* slide	1 mark
Print 6 slides to page and *Tin Mining* as single, full page slide	1 mark

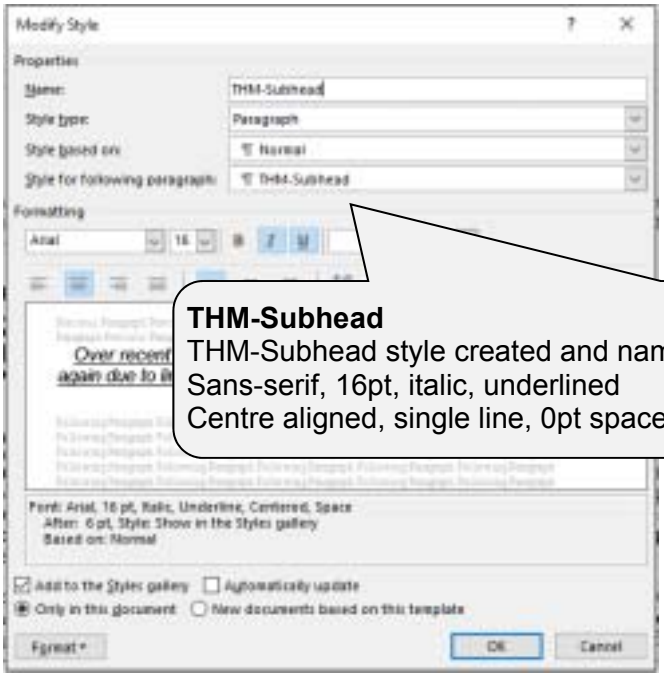
Evidence Document

Step 1 – **EVIDENCE 1 –** File saved as MINING and evidence of file type

File saved as MINING correct file type 1 mark

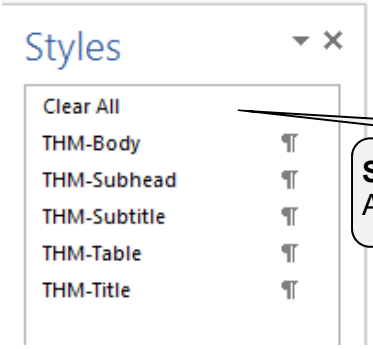


Step 4 – **EVIDENCE 2 –** THM-Subhead style definition screen shot here:



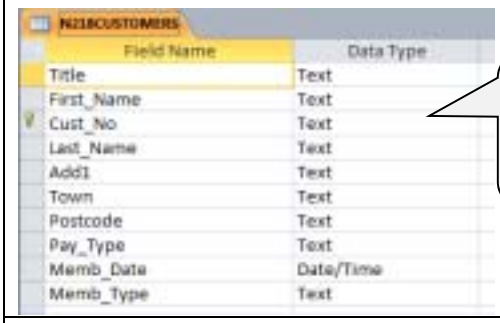
THM-Subhead
THM-Subhead style created and named correctly 1 mark
Sans-serif, 16pt, italic, underlined 1 mark
Centre aligned, single line, 0pt space before, 6pt after (no other spacing set) 1 mark

Step 5 – **EVIDENCE 3 –** Style list – styles correctly created, named and saved



Style list
At least 1 THM style other than THM-Subhead listed 1 mark

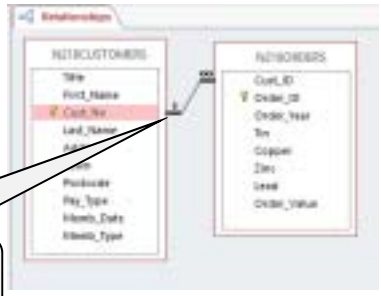
Step 22 - **EVIDENCE 4 –** Database field structure screen shot here:



DB Structure
10 Field names as given, correct data types,
Cust_No set as primary key 1 mark

Step 23 - **EVIDENCE 5** – Relationship between the two tables screen shot here:

OR

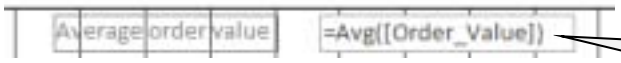


1 to Many relationship between
Cust_No and *Cust_ID* fields 1 mark

Step 25 - **EVIDENCE 6** – Form

Form
Columnar form created, all (8) fields from orders table,
field headings left aligned, all data fully visible 1 mark
Appropriate title in the form header 1 mark
Form used to add new record – 100% accurate 1 mark

Step 26 – **EVIDENCE 7** – Calculated average formulae screen shot here:



Database formula for calculated Average 1 mark

Step 27 – **EVIDENCE 8 –** extract exported

Report exported as text file with evidence of file type 1 mark

Step 29 – **EVIDENCE 9 – AO1**

The Customers table contains a primary key. Explain why the Last_Name field would not be appropriate as a primary key:

(a) data not unique/people may have the same last name 1 mark

When adding data to a field in the Customers table, it would be easier for a user to select data from a list.

Identify another advantage of selecting data from a list:

(b) Speeds up data entry/reduces data entry errors 1 mark

Identify two fields that would be most suitable for setting up as a list selection

(c) **Two** from: Pay_Type
Memb_Type
Title 2 marks

Step 30 – **EVIDENCE 10** – date field screen shot here:

{ DATE \@ "dd-MMM-yy" * MERGEFORMAT }

Evidence of field for today's date, correct format dd-MMM-yy 1 mark

Step 34 – **EVIDENCE 11** – Mail merge selection method screen shot here:

Mail Merge
Evidence of automated filter to select Elite status 1 mark

Step 43 – **EVIDENCE 12**

Tawara are currently backing up their data onto a tape drive system. They are considering backing up onto the cloud.

- *Evaluate in your own words the use of the cloud to back up data compared to their tape drive system. Recommend the most appropriate back up storage for Tawara Heritage Mining to use.*

This is a comparison question (responses must include both cloud versus tape)

Benefits of cloud

- access to files and data anywhere at any time vs access to tape physical location
- reduced hardware/software costs as there is no hardware
- only pay for the storage you use, on a tape system you have to buy a brand new tape
- more fault tolerance – greater chances of recovering data from raided/mirror cloud storage
- access to data on cloud is faster than tape as tape may need to come from off-site store/direct access to storage within the cloud vs sequential access on tape
- storage capacity may be unlimited on the cloud vs capacity of storage limited on tape

Drawbacks of cloud

- concerns over security of data/multiple copies, don't know where data is stored, tape systems are more secure
- ownership of data, data on tapes is fully owned by you
- need internet access to update/access files, tapes you don't/data restrictions through ISP
- pay monthly subscription to cloud storage provider/ongoing cost [max 3 marks]

Recommendation [1 mark]